* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 APR 02 CAS Registry Number Crossover Limits Increased to 500,000 in Key STN Databases
NEWS 3 APR 02 PATDPAFULL: Application and priority number formats enhanced
NEWS 4 APR 02 DWPI: New display format ALLSTR available
NEWS 5 APR 02 New Thesaurus Added to Derwent Databases for Smooth Sailing through U.S. Patent Codes
NEWS 6 APR 02 EMBASE Adds Unique Records from MEDLINE, Expanding Coverage back to 1948
NEWS 7 APR 07 CA/CAplus CLASS Display Streamlined with Removal of Pre-IPC 8 Data Fields
NEWS 8 APR 07 50,000 World Traditional Medicine (WTM) Patents Now Available in CAplus
NEWS 9 APR 07 MEDLINE Coverage Is Extended Back to 1947
NEWS 10 JUN 16 WPI First View (File WPIFV) will no longer be available after July 30, 2010
NEWS 11 JUN 18 DWPI: New coverage - French Granted Patents
NEWS 12 JUN 18 CAS and FIZ Karlsruhe announce plans for a new STN platform
NEWS 13 JUN 18 IPC codes have been added to the INSPEC backfile (1969-2009)
NEWS 14 JUN 21 Removal of Pre-IPC 8 data fields streamline displays in CA/CAplus, CASREACT,and MARPAT
NEWS 15 JUN 21 Access an additional 1.8 million records exclusively enhanced with 1.9 million CAS Registry Numbers -- EMBASE Classic on STN
NEWS 16 JUN 28 Introducing "CAS Chemistry Research Report": 40 Years of Biofuel Research Reveal China Now Atop U.S. in Patenting and Commercialization of Bioethanol
NEWS 17 JUN 29 Enhanced Batch Search Options in DGENE, USGENE, and PCTGEN
NEWS 18 JUL 19 Enhancement of citation information in INPADOC databases provides new, more efficient competitor analyses
NEWS 19 JUL 26 CAS coverage of global patent authorities has expanded to 61 with the addition of Costa Rica
NEWS 20 SEP 09 New basic patent number increases precision in retrieving records from USGENE

NEWS 21 SEP 15 MEDLINE Cited References provide additional revelant records with no additional searching.

NEWS EXPRESS FEBRUARY 15 10 CURRENT WINDOWS VERSION IS V8.4.2, AND CURRENT DISCOVER FILE IS DATED 07 JULY 2010.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items

Enter NEWS followed by the item number or name to see news on that
specific topic.

* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 13:07:08 ON 17 SEP 2010

=> file caplus
COST IN U.S. DOLLARS SINCE FILE
TOTAL ENTRY SESSION
FULL ESTIMATED COST 0.22 0.22

FILE 'CAPLUS' ENTERED AT 13:07:36 ON 17 SEP 2010
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 17 Sep 2010 VOL 153 ISS 13
FILE LAST UPDATED: 16 Sep 2010 (20100916/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2010

CAplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2010.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s ((ames(w)test?) and (presen? or absen?))/bi,ab 8294
AMES/BI 7271 AMES/AB 2439483
TEST?/BI 2272033 TEST?/AB 4616
AMES(W)TEST? 5450589 PRESEN?/BI 5188538
PRESEN?/AB 602214 ABSEN?/BI 578446
ABSEN?/AB
L1 1365 ((AMES(W)TEST?) AND (PRESEN? OR ABSEN?))/BI,AB

=> l1 not 2010/py
L1 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

```
=> s l1 not 2010/py    1273554 2010/PY
L2        1340 L1 NOT 2010/PY

=> s l2 not 2009/py    1886072 2009/PY
L3        1305 L2 NOT 2009/PY

=> s l3 not 2008/py    1804885 2008/PY
L4        1271 L3 NOT 2008/PY

=> s l4 not 2007/py    1726215 2007/PY
L5        1228 L4 NOT 2007/PY

=> s l5 not 2006/py    1589829 2006/PY
L6        1193 L5 NOT 2006/PY

=> s l6 not 2005/py    1435898 2005/PY
L7        1165 L6 NOT 2005/PY

=> s l7 not 2004/py    1353918 2004/PY
L8        1122 L7 NOT 2004/PY

=> s l8 not 2003/py    1273638 2003/PY
L9        1084 L8 NOT 2003/PY

=> d his
  (FILE 'HOME' ENTERED AT 13:07:08 ON 17 SEP 2010)
  FILE 'CAPLUS' ENTERED AT 13:07:36 ON 17 SEP 2010
L1        1365 S ((AMES(W)TEST?) AND (PRESEN? OR
ABSEN?))/BI,AB
L2        1340 S L1 NOT 2010/PY
L3        1305 S L2 NOT 2009/PY
L4        1271 S L3 NOT 2008/PY
L5        1228 S L4 NOT 2007/PY
L6        1193 S L5 NOT 2006/PY
L7        1165 S L6 NOT 2005/PY
L8        1122 S L7 NOT 2004/PY
L9        1084 S L8 NOT 2003/PY

=> s l9 and ((presen? or absen?) (5a) carcinogen?)/bi,ab
5450589 PRESEN?/BI              5188538 PRESEN?/AB
602214 ABSEN?/BI                578446 ABSEN?/AB
119974 CARCINOGEN?/BI           91168 CARCINOGEN?/AB
1923 ((PRESEN? OR ABSEN?) (5A) CARCINOGEN?)/BI,AB
L10       22 L9 AND ((PRESEN? OR ABSEN?) (5A)
CARCINOGEN?)/BI,AB

=> d his
  (FILE 'HOME' ENTERED AT 13:07:08 ON 17 SEP 2010)
  FILE 'CAPLUS' ENTERED AT 13:07:36 ON 17 SEP 2010
L1        1365 S ((AMES(W)TEST?) AND (PRESEN? OR
ABSEN?))/BI,AB
L2        1340 S L1 NOT 2010/PY
L3        1305 S L2 NOT 2009/PY
L4        1271 S L3 NOT 2008/PY
L5        1228 S L4 NOT 2007/PY
L6        1193 S L5 NOT 2006/PY
L7        1165 S L6 NOT 2005/PY
L8        1122 S L7 NOT 2004/PY
L9        1084 S L8 NOT 2003/PY
L10         22 S L9 AND ((PRESEN? OR ABSEN?) (5A)
CARCINOGEN?)/BI,AB

=> d l10 1-22 bib ab
```

L10 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2002:86489 CAPLUS <<LOGINID::20100917>>
DN 136:359349
TI Mutagenicity and disinfection by-products in surface drinking water disinfected with peracetic acid
AU Monarca, Silvano; Richardson, Susan D.; Feretti, Donatella; Grottolo, Mario; Thruston, Alfred D., Jr.; Zani, Claudia; Navazio, Giancarlo; Ragazzo, Patrizia; Zerbini, Ilaria; Alberti, Adriana
CS Department of Experimental and Applied Medicine, Hygiene Section, University of Brescia, Brescia, I-25123, Italy
SO Environmental Toxicology and Chemistry (2002), 21(2), 309-318 CODEN: ETOCDK; ISSN: 0730-7268
PB SETAC Press
DT Journal
LA English
AB This work studied the effect of peracetic acid (PAA) on formation of mutagens in surface water used for human consumption and assessed its potential application for drinking water disinfection. Results obtained with PAA were compared to those obsd. with sodium hypochlorite and ClO2. The ***Ames*** ***test*** , root anaphase aberration assay, and root/micronuclei assay in Allium cepa and Tradescantia/micronuclei tests evaluated the mutagenicity of disinfected samples. Microbiol. tests were performed and disinfection byproducts (DBP) were identified using gas chromatog./mass spectrometry. A slight bacterial mutagenicity was obsd. in raw lake and river water; similar activity was detected in disinfected samples. A plant test showed genotoxicity in raw river water and microbiol. anal. showed PAA has bactericidal activity, but less than that of the other disinfectants. DBP produced by PAA were mainly carboxylic acids, which are not recognized as mutagenic; water treated with the other disinfectants showed the ***presence*** of mutagenic/ ***carcinogenic*** halogenated DBP. Addnl. expts. should be performed with higher PAA concns. using water with higher org. C content to better evaluate this disinfectant.
OSC.G 47 THERE ARE 47 CAPLUS RECORDS THAT CITE THIS RECORD (47 CITINGS)
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2001:113426 CAPLUS <<LOGINID::20100917>>
DN 134:226559
TI Monitoring airborne genotoxicants in the rubber industry using genotoxicity tests and chemical analyses
AU Monarca, S.; Feretti, D.; Zanardini, A.; Moretti, M.; Villarini, M.; Spiegelhalder, B.; Zerbini, I.; Gelatti, U.; Lebbolo, E.
CS Department of Experimental and Applied Medicine, Hygiene Section, University of Brescia, Brescia, Italy
SO Mutation Research, Genetic Toxicology and Environmental Mutagenesis (2001), 490(2), 159-169 CODEN: MRGMFI; ISSN: 1383-5718
PB Elsevier B.V.
DT Journal
LA English
AB This research was designed to examine the ***presence*** of mutagenic/ ***carcinogenic*** compds. in airborne pollutants in the rubber industry using an integrated chem./biol. approach. Inhalable airborne particulate matter (PM10, i.e., <10 .mu.m) was collected in 4 rubber factories using a high-vol. sampler equipped with a cascade impactor for particle fractionation. Org. exts. of 2 different fractions (0.5-10 .mu.m and <0.5 .mu.m) were examd. for mutagenicity using the

Ames ***test*** and for in-vitro DNA-damaging activity in human leukocytes by single-cell microgel electrophoresis (Comet assay). Exts. were also studied by gas chromatog./mass spectrometry (GC/MS) for polycyclic arom. hydrocarbon (PAH) content. Nitrosamines in ambient air were sampled on cartridges and analyzed by GC with a thermal energy analyzer (TEA) detector. Airborne volatile genotoxins were monitored in-situ using a clastogenicity plant test (Tradescantia/micro-nuclei test). Results showed that airborne particulates were mainly very fine (<0.5 .mu.m) and that trace amts. of genotoxic nitrosamines (N-nitrosodimethylamine: 0.10-0.98 .mu.g/m3; N-nitrosomorpholine: 0.77-2.40 .mu.g/m3) and PAH (total PAH: 0.34-11.35 .mu.g/m3) were ***present*** in air samples. Some exts., particularly those obtained from the finest fractions, were mutagenic with the ***Ames*** ***test*** and genotoxic with the Comet assay. In-situ monitoring of volatile mutagens using the Tradescantia/micro-nuclei test gave pos. results in 2 working environments. Results showed the applicability of this integrated chem.-biol. approach to detect volatile and non-volatile genotoxins and to monitor genotoxic hazards in the rubber industry.
OSC.G 30 THERE ARE 30 CAPLUS RECORDS THAT CITE THIS RECORD (30 CITINGS)
RE.CNT 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2001:13925 CAPLUS <<LOGINID::20100917>>
DN 134:157781
TI DNA interstrand cross-link induced by estrogens as well as their complete and synergic carcinogenesis
AU Dai, Qianhuan; Liu, Xin
CS Center for Chemistry and Bioengineering of Cancer Research, Beijing Polytechnic University, Beijing, 100022, Peop. Rep. China
SO Chinese Science Bulletin (2000), 45(23), 2125-2130 CODEN: CSBUEF; ISSN: 1001-6538
PB Science in China Press
DT Journal
LA English
AB The estrogens show neg. activity in ***Ames*** ***test*** , but estradiol and diethylstilbestrol both are carcinogens based upon animal expts. and epidemiol. investigations. It is concluded from the di-region theory, a mechanism put forward by one of the ***present*** authors, that the ***carcinogenesis*** of estrogens is switched on by the covalent cross-link between complementary DNA bases induced by them. We verified for the first time by the DNA alk. elution method that both estradiol and diethylstilbestrol cause covalent cross-link between DNA-protein and DNA interstrands after metabolic activation with dosage correlation, but neither the non-carcinogens cholesterol nor pyrene can lead to these sorts of cross-link in the same condition. It has been known that there is a synergetic effect between estrogen and pollution of polycyclic arom. hydrocarbons. Although non-carcinogenic pyrene alone cannot induce cross-link, its addn. with equal molar quantity to estradiol culture causes synergically the total and DNA interstrand cross-link ratios to be resp. four and three times more than the ones in the cultivation with estradiol only. It is shown that not only the estradiol set off the formation of pyrene bi-radicals, but also the pyrene radicals arouse conversely the prodn. of estradiol bi-radicals.
OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2000:228348 CAPLUS <<LOGINID::20100917>>
DN 132:344194
TI A new sensitive test based on yeast cells for studying environmental pollution
AU Terziyska, A.; Waltschewa, L.; Venkov, P.
CS Institute of Molecular Biology, Bulgarian Academy of Sciences, Sofia, 1113, Bulg.
SO Environmental Pollution (Oxford, United Kingdom) (2000), 109(1), 43-52 CODEN: ENPOEK; ISSN: 0269-7491
PB Elsevier Science Ltd.
DT Journal
LA English
AB Different tests based on yeast cells were developed for detn. of mutagenic/carcinogenic action; however, they all showed lower sensitivity compared to bacterial tests, the main reason for this being the limited permeability of yeast cells. We found that general permeability of Saccharomyces cerevisiae cells can be increased by mutation and on this basis we developed a more sensitive test. The aim of this study was to prove the applicability of our test, called D7ts1, in environmental studies. Soil, water and air samples were taken during 1998 from regions in Bulgaria with declared low, av. or high pollution levels and investigated for ***presence*** of mutagenic/ ***carcinogenic*** activities in the bacterial test of Ames, the yeast D7 test of Zimmermann and our new D7ts1 test. Results obtained evidenced the following conclusions: (1) the usage of D7ts1 test instead of D7 test permits a clearer measurement of pos. samples and detects mutagenic/carcinogenic activities undetectable by D7 test; (2) all samples with pos. ***Ames*** ***test*** were pos. in the D7ts1 test; however, some samples, clearly pos. in the D7ts1, were neg. in the ***Ames*** ***test*** ; therefore, the simultaneous usage of D7ts1 and ***Ames*** ***tests*** in environmental studies is advantageous because it detects dangers for the human health activities to which bacterial cells do not respond; and (3) regions in Bulgaria declared clean were found to be polluted; particularly troubled are the whole-year pos. data in the three tests for air samples from a "clean" region.
OSC.G 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS)
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2000:223418 CAPLUS <<LOGINID::20100917>>
DN 133:12432
TI Differential modulation of the genotoxicity of food carcinogens by naturally occurring monomeric and dimeric polyphenolics
AU Catterall, Fenton; Souquet, Jean-Marc; Cheynier, Veronique; De Pascual-Teresa, Sonia; Santos-Buelga, Celestino; Clifford, Michael N.; Loannides, Costas
CS School of Biological Sciences, University of Surrey, Surrey, GU2 5XH, UK
SO Environmental and Molecular Mutagenesis (2000), 35(2), 86-98 CODEN: EMMUEG; ISSN: 0893-6692
PB Wiley-Liss, Inc.
DT Journal
LA English

AB Naturally occurring dimeric polyphenolics and their gallate esters were isolated from grape seeds, almond fruits, and apple skin, and their ability to modulate the mutagenicity of food carcinogens was studied in the ***Ames*** ***test*** , and compared to that of the monomeric green tea flavonols, (+)-catechin and (-)-epicatechin. Neither the monomeric nor the dimeric polyphenols and their galloylated derivs. influenced the mutagenic activity elicited by the indirectly acting food carcinogens benzo[a]pyrene and 2-amino-3-methylimidazo-[4,5-f]quinoline (IQ), in the ***presence*** of a hepatic activation system derived from Aroclor 1254-treated rats; the only exception was the B7 dimer, which, at concns. above 1 .mu.M, suppressed the mutagenicity of IQ. None of the polyphenolics modulated the mutagenic activity elicited by the directly acting carcinogen N'-methyl-N'-nitro-nitrosoguanidine (MNNG). In contrast, all the dimeric polyphenols and the galloylated metabolites, at concns. over 1 .mu.M, potentiated the mutagenic activity induced by the indirectly acting ***carcinogen*** N-nitrosopyrrolidine, in the ***presence*** of an activation system derived from isoniazid-treated rats. In conclusion, dimeric polyphenols and galloylated derivs. of plant origin are unlikely to influence the initiation stage of the carcinogenicity of chems. through mechanisms that involve inhibition of their cytochrome P 450-mediated bioactivation or scavenging of the reactive, genotoxic intermediates.
OSC.G 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)
RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1999:340327 CAPLUS <<LOGINID::20100917>>
DN 131:34956
TI Monitoring of mutagens in urban air samples
AU Monarca, S.; Feretti, D.; Zanardini, A.; Falistocco, E.; Nardi, G.
CS Hygiene Section, Department of Experimental and Applied Medicine, University of Brescia, Brescia, I-25123, Italy
SO Mutation Research, Fundamental and Molecular Mechanisms of Mutagenesis (1999), 426(2), 189-192 CODEN: MUREAV; ISSN: 0027-5107
PB Elsevier Science B.V.
DT Journal
LA English
AB The ***presence*** of mutagenic/ ***carcinogenic*** compds. in urban airborne particulates sampled with the inhalable PM10 high vol. sampler in 2 different streets of Brescia, a heavily industrialized town in northern Italy, was examd. using the Tradescantia/micronucleus test and a bacterial mutagenicity test (Kado test, a more sensitive version of the ***Ames*** ***test***). In addn., the Tradescantia/micronucleus test was used for in-situ monitoring of gaseous pollutants in other urban areas of Brescia and in 2 car tunnels, one with heavy car traffic in Perugia, a town in central Italy, and one in Brescia with moderate traffic. The Tradescantia-micronucleus test conducted on airborne particulate exts. had pos. results only for the sample collected in the traffic-congested street where higher bacterial mutagenicity was also obsd. In-situ monitoring of urban areas with the Tradescantia/micronucleus test always had neg. results. Monitoring of the 2 car tunnels showed a significant increase in micronuclei frequency only in flowers exposed in the smaller, more polluted tunnel.
OSC.G 27 THERE ARE 27 CAPLUS RECORDS THAT CITE THIS RECORD (29 CITINGS)
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1999:50611 CAPLUS <<LOGINID::20100917>>
DN 130:241256
TI The mutagenicity of airborne particulate matter from Chiang Mai City
AU Zhang, Rong
CS ERA Program, Faculty of Science, Chiang Mai University, Chiang Mai, 50200, Thailand
SO Journal of the Science Faculty of Chiang Mai University (1997), 24(2), 100-105 CODEN: JSFUD9; ISSN: 0125-2526
PB Chiang Mai University, Faculty of Science
DT Journal
LA English
AB Airborne contaminants are normally retained in the lower stratosphere and eventually interact with terrestrial organisms or are dissolved in water. They are more directly in const. with humans through inhalation. The findings from a previous study revealed the relationship between mutagenicity and polycyclic arom. hydrocarbons (PAHs). PAHs are a class of pollutants suspected to be ***carcinogenic*** , although they are ***present*** at low concn. in air. Air pollution in Chiang Mai is increasing due to increasing traffic. Due to public concerns about air quality, a study of air pollution in Chiang Mai was carried out. Spider-webs and mask filters were collected and mutagenesis was detected by the ***Ames*** ***Test*** using an ext. of these matrixes from different places around Chiang Mai City. The spider-webs and filters showed a pos. response with metabolic activity (S9) and without it. Moreover, the mutagenicity was much higher in the ***presence*** of rat liver microsomal fraction (S9 mixt.) than without it. Further research is necessary on airborne particulates.
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1996:386779 CAPLUS <<LOGINID::20100917>>
DN 125:51289
OREF 125:9717a,9720a
TI Evaluation of mutagenic activity of chlorinated water
AU Bilyk, Andrezej; Kolwzan, Barbara; Traczewska, Theodora M.
CS Inst. Inzy. Ochrony Srodowiska, Politechnika Wroclawska, Wroclaw, 50-378, Pol.
SO Roczniki Panstwowego Zakladu Higieny (1996), 47(1), 77-85 CODEN: RPZHAW; ISSN: 0035-7715
PB Panstwowy Zaklad Higieny
DT Journal
LA Polish
AB City of Wroclaw is supplied with water from Olawa. The main contaminations of water are high concn. of org. compds. and bacteria count. Raw and drinking water show some mutagenic and carcinogenic properties in ***Ames*** ***tests*** . To improve the quality of drinking water now technol. bored on infiltrated water composed of, coagulation, filtration and disinfection was tested. The goal of investigation and was to examine mutagenic and carcinogenic properties of raw and treated water. Potential carcinogenic activity of volatile disinfection - by- products was estd. by direct anal. of THMs, while for nonvolatile halogenated org. substances ***Ames*** ***test*** was used. Carcinogenic risk based on THMs concn. could be est. as 10-5 for chlorine and 10-6 for chlorine dioxide. Ozonization and post chlorination did not lowered the risk.

Positives results of ***Ames*** ***test*** obtained for raw water no 2 with Salmonella typhimurium TA100, and for chlorinated treated water with Salmonella typhimurium TA98. The treatment of water with chlorine transforms same compds. into carcinogenic chlorinated derivs. and does not eliminate its harmful properties. The results suggest that not all methods of treatment remove harmful to the health components from the water. Consequently in the case of the ***presence*** of such compds. in surface water it is necessary to employ appropriate methods and procedures the used ***Ames*** ***test*** allows rapid detn. of the ***presence*** of ***carcinogenic*** compd. in water. In Poland detn. of the ***presence*** of potential ***carcinogens*** in water destined for the supply of urban areas is not obligatory and std. analyses of chem. compn. do not give such information. It seems that the mentioned test could be considered for the control of the quality of raw and treated water as an indispensable measure contributing to reducing the health hazard for the population.
OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L10 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1995:705050 CAPLUS <<LOGINID::20100917>>
DN 123:104468
OREF 123:18427a,18430a
TI Prospects of SOS chromotest usage in predicting the carcinogenic activity of chemical compounds
AU Koresshkova, S. V.; Tanirbergenov, T. B.; Tarasov, V. A.
CS Vavilov Inst. General Genetics, Russian Acad. Sci., Moscow, 117809, Russia
SO Russian Journal of Genetics (Translation of Genetika (Moscow)) (1995), 31(6), 736-9 CODEN: RJGEEQ; ISSN: 1022-7954
PB MAIK Nauka/Interperiodica
DT Journal
LA English
AB When studying the carcinogenic activity of a compd., one of the basic problems is to det. the predictability of the methods used for testing; in the opinion, the most promising method is the SOS chromotest. To evaluate the test, the authors sampled 25 substances with a known carcinogenic activity, which had not been tested with the SOS chromotest before. Properties of the SOS chromotest were analyzed on the basis of a data-base contg. 154 substances at ***present*** , which are characterized with regard to the ***presence*** of ***absence*** of a ***carcinogenic*** effect in rodents. The results are distributed as follows: 121 carcinogens, of which 79 pos. respond to the SOS chromotest and 33 noncarcinogens, of which 28 neg. respond to the SOS chromotest. The sensitivity and specificity of the SOS chromotest were measured as 65.3 and 84.9%, resp. Comparing the results obtained with the ***Ames*** ***test*** and with the SOS chromotest, it was shown that the test were similar in sensitivity and specificity. A similar predictability of both methods was also recorded.

L10 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1993:207269 CAPLUS <<LOGINID::20100917>>
DN 118:207269
OREF 118:35529a,35532a
TI Cytosolic activation of 2-aminoanthracene: implications in its use as diagnostic mutagen in the ***Ames*** ***test***
AU Ayrton, A. D.; Neville, S.; Ioannides, C.
CS Sch. Biol. Sci., Univ. Surrey, Guildford/Surrey, GU2 5XH, UK
SO Mutation Research, Fundamental and Molecular Mechanisms of Mutagenesis (1992), 265(1), 1-8 CODEN: MUREAV; ISSN: 0027-5107
DT Journal
LA English
AB The metabolic activation of 2-aminoanthracene to mutagens in the ***Ames*** ***test*** was investigated using hepatic S9, microsomal and cytosolic fractions from control and Aroclor 1254-treated rats as activation systems. Microsomal and S9 prepns. from control animals could activate 2-aminoanthracene, but the efficiency of activation was suppressed by pretreatment of animals with Aroclor 1254. Cytosolic fractions from Aroclor 1254-treated rats could readily activate the promutagen more readily than microsomes. The cytosolic activation of 2-aminoanthracene required NADPH and could not be accounted for by possible microsomal contamination. The molybdenum oxygenases appear not to contribute to the cytosolic activation of this promutagen. It is concluded that the microsomal activation of 2-aminoanthracene is catalyzed more effectively by enzyme systems other than the P 450 I family and an enzyme system capable of activating this ***carcinogen*** in vitro is ***present*** in the hepatic cytosol. The implications of these findings in the use of 2-aminoanthracene as a pos. control in the ***Ames*** ***test*** are discussed.
OSC.G 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

L10 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1993:162916 CAPLUS <<LOGINID::20100917>>
DN 118:162916
OREF 118:27793a,27796a
TI Mutagenicity testing of imidazole and related compounds
AU Forster, R.; Blowers, S. D.; Cinelli, S.; Marquardt, H.; Westendorf, J.
CS Italfarmaco Res. Cent., Cinisello Balsamo, 20092, Italy
SO Mutation Research, Genetic Toxicology Testing (1992), 298(2), 71-9 CODEN: MRGTE4; ISSN: 0165-1218
DT Journal
LA English
AB ***Ames*** ***tests*** were performed with imidazole (I) and its principal metabolites, hydantoin and hydantoic acid. N-Acetylimidazole, a potential metabolite resulting from the action of intestinal bacteria, and histamine, a structurally related compd. which is widely distributed in mammalian tissues, were also tested. I and histamine were also tested in the UDS assay in primary rat hepatocytes, while I alone was tested in the M2-C3H mouse fibroblast malignant transformation assay. Imidazole gave consistently neg. results in the ***Ames*** ***test*** , the UDS assay and the transformation assay. The three metabolites of I, namely, hydantoin, hydantoic acid and N-acetylimidazole, all gave neg. results in the ***Ames*** ***test*** . Histamine gave no evidence of mutagenic activity in the ***Ames*** ***test*** or of genotoxicity in the UDS assay. These results indicate that I and its metabolites are unlikely to ***present*** a mutagenic or ***carcinogenic*** hazard.
OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L10 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1990:606501 CAPLUS <<LOGINID::20100917>>
DN 113:206501
OREF 113:34765a,34768a

TI Extracts of airborne particulates collected at different locations in the Copenhagen area induce the expression of cytochrome P-450IA1
AU Roepstorff, Vibe; Ostenfeldt, Nina; Autrup, Herman
CS Fibiger Inst., Dan. Cancer Soc., Copenhagen, DK-2100, Den.
SO Journal of Toxicology and Environmental Health (1990), 30(4), 225-37 CODEN: JTEHD6; ISSN: 0098-4108
DT Journal
LA English
AB Acetone exts. of airborne particulates collected at different sites in the greater Copenhagen area were tested for their ability to induce the expression of cytochrome P 450IA1 in a human breast cancer cell line, T47-D. The induction efficiency was expressed as a benz[a]anthracene equiv., i.e., the amt. of benz[a]anthracene required to give the same level of induction. A significantly higher level of induction of P 450IA1 RNA was seen with samples collected on days with a smog alert. The inducibility of samples collected in rural areas was lower, but no significant difference in inducibility was found between samples collected in urban and suburban areas. Lack of correlation between the mutagenic activity in the Ames assay and the P 450IA1-inducing activity of the samples suggests that the complex mixt. of compds. found in airborne particulates may have different biol. activities in the 2 short-term systems. Measurements of P 450IA1 inducibility provide a new, sensitive approach to assess the biol. activity of material ***present*** in air pollution. The ***presence*** of airborne particulates of chem. compds. that induce cytochrome P 450IA1, an enzyme responsible for the metab. of ubiquitous chem. carcinogens, suggests that the general environment may change an individual's response to the impact of exogenous chems., including the ***carcinogens*** ***present*** in cigarette smoke.
OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L10 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1990:436197 CAPLUS <<LOGINID::20100917>>
DN 113:36197
OREF 113:6081a,6084a
TI The induction of P450 I proteins by aromatic amines may be related to their carcinogenic potential
AU Ayrton, Andrew David; McFarlane, Mary; Walker, Ron; Neville, Sally; Ioannides, Costas
CS Dep. Biochem., Univ. Surrey, Guildford/Surrey, GU2 5XH, UK
SO Carcinogenesis (1990), 11(5), 803-9 CODEN: CRNGDP; ISSN: 0143-3334
DT Journal
LA English
AB The hypothesis has been put forward that genotoxic arom. amines which induce the P 450 I family of hemoproteins, the major enzyme involved in their bioactivation, are more likely to be carcinogenic when compared to those chems. that fail to do so. Induction of the hepatic P 450 I family of proteins by carcinogenic arom. amines and their noncarcinogenic isomers and analogs was investigated in the rat and correlated to their carcinogenic potential. The activity of the P 450 I A1 protein was monitored by the O-deethylation of ethoxyresorufin and of the P 450 I A2 by the activation of the premutagen Glu-P-1 to mutagenic intermediates in the ***Ames*** ***test*** . Results were always confirmed immunol. in Western blots employing antibodies to rat P 450 I A1 which recognize both proteins of the P 450 I family. With all groups of chems. used in the ***present*** study, the members displaying ***carcinogenicity*** were always the more potent inducers, whereas the noncarcinogenic isomers or analogs displayed little or no induction. It appears that a relationship exists between the carcinogenicity of arom. amines and their ability to induce hepatic P 450 I activity.
OSC.G 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)

L10 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1990:419290 CAPLUS <<LOGINID::20100917>>
DN 113:19290
OREF 113:3249a,3252a
TI Correlations between bioassay dose-level, mutagenicity to Salmonella, chemical structure and sites of carcinogenesis among 226 chemicals evaluated for carcinogenicity by the U.S. NTP
AU Brown, L. P.; Ashby, J.
CS Toxicol. Lab., ICI Cent., Macclesfield/Cheshire, SK10 4TJ, UK
SO Mutation Research Letters (1990), 244(1), 67-76 CODEN: MRLEDH; ISSN: 0165-7992
DT Journal
LA English
AB Bioassay dose-level data for 226 chems. unequivocally defined as carcinogens or noncarcinogens in mice and(or) rats by the US National Toxicol. Program (NTP) were standardized to gavage equiv. dose-levels according to a modification of the methods of L.S. Gold et al. (1984). Correlations by bioassay dose-level with chem. structure, mutagenicity to Salmonella, sites of carcinogenesis, and extent of trans-species activity were studied. The data obtained add further wt. to the proposition that two classes of rodent ***carcinogen*** are ***present*** in the NTP database-genotoxic ***carcinogens*** that occur predominantly in the dose range 20-800 mg/kg and putative nongenotoxic carcinogens that are equally distributed over the dose range <20->3000 mg/kg. The latter carcinogens are characterized by the lack of structural alerts to DNA reactivity, the ***absence*** of mutagenicity to Salmonella, an inability to induce tumors in 8 ref. tissues and a strong tendency to be tissue and species-specific in their activity. Where comparisons can be made, the ***present*** findings for the NTP ***carcinogens*** and noncarcinogens are consistent with the recent observations by L.S. Gold et al. (1984) for a larger group of carcinogens.
OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

L10 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1989:495761 CAPLUS <<LOGINID::20100917>>
DN 111:95761
OREF 111:16097a,16100a
TI Contribution of coffee aroma constituents to the mutagenicity of coffee
AU Aeschbacher, H. U.; Wolleb, U.; Loliger, J.; Spadone, J. C.; Liardon, R.
CS Nestle Res. Cent., Nestec Ltd., Lausanne, CH-1000/26, Switz.
SO Food and Chemical Toxicology (1989), 27(4), 227-32 CODEN: FCTOD7; ISSN: 0278-6915
DT Journal
LA English
AB About 40 coffee aroma constituents belonging to the classes of dicarbonyls, S-contg. compds., furfuryls, N-heterocyclics, and others were systematically evaluated in 3 ***Ames*** ***tester*** strains. Only aliph. dicarbonyl compds. showed notable direct mutagenic activity, which mainly affected base-pair substitution in ***Ames*** ***tester*** strains TA100 and TA102. Very weak effects were also seen with some N-heterocyclics, mainly affecting frameshift tester strain TA98

upon metabolic activation. However, it was shown that these N-heterocyclics do not contribute substantially to the mutagenicity in coffee. The H2O2 and methylglyoxal contents of coffee were detd. up to 26 h after prepn. Their concns. tended to decrease, whereas mutagenic activity decreased significantly contribute to the bacterial mutagenicity and also that the synergism between H2O2 and methylglyoxal is not the main factor. The ***absence*** of coffee mutagenicity/ ***carcinogenicity*** in rodents with these highly reactive coffee aroma compds. can be explained in part by detoxification of microsomal enzyme systems.
OSC.G 26 THERE ARE 26 CAPLUS RECORDS THAT CITE THIS RECORD (26 CITINGS)

L10 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1989:63146 CAPLUS <<LOGINID::20100917>>
DN 110:63146
OREF 110:10339a,10342a
TI Analysis of mutagenicity of waters under the influence of petrochemical industrial complexes by the ***Ames*** ***test*** (Salmonella/microsome)
AU Vargas, V. M. F.; Motta, V. E. P.; Henriques, J. A. P.
CS Porto Alegre, 90250, Brazil
SO Revista Brasileira de Genetica (1988), 11(3), 505-18
CODEN: RBGED3; ISSN: 0100-8455
DT Journal
LA English
AB Water samples within the area of the III Petrochem. Industrial Complex (pluvial draining accumulation, safety basins and industrial effluent) and at different points along the Cai River, Brazil, were tested for the ***presence*** of mutagens and/or ***carcinogens*** using the ***Ames*** ***test*** . Pos. results were obtained for the TA 100 and TA 98 strains with or without microsomal activation in samples within the area of the Petrochem. Industrial Complex and at the Cai River sampling sites closest to the industrial complex. These results suggest the ***presence*** of mutagens causing frameshift and base-pair substitution mutations, indicating the need for continuous monitoring of the area of influence of the III Petrochem. Industrial Complex to evaluate the full environmental impact of this industrial complex.
OSC.G 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)

L10 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1987:151271 CAPLUS <<LOGINID::20100917>>
DN 106:151271
OREF 106:24561a,24564a
TI Toxicology and carcinogenesis studies of chlorinated trisodium phosphate (CAS No. 56082-99-4) in B6C3F1 mice (gavage studies)
CS National Toxicology Program, Research Triangle Park, NC, 27709, USA
SO Natl. Toxicol. Program Tech. Rep. Ser. (1986), 294, 109 pp.
CODEN: NTPSE3
DT Report
LA English
AB Two-year toxicol. and carcinogenesis studies of Na hypochlorite phosphate (chlorinated trisodium phosphate) [11084-85-8], an inclusion complex used in various cleaning compds., were conducted by administering 0, 500, or 1000 mg/kg (dose vol.: 10 mL/kg) of the chem. in water by gavage, 5 days/wk for 103 wk, to groups of 50 male and 50 female mice. Two-year studies were begun in male and female rats at doses of 0, 500, 1000, or 2000 mg/kg of chlorinated trisodium phosphate in water by gavage (10 mL/kg). The 2000 mg/kg groups were killed at 15 wk because of poor survival, and the other groups were killed at 35 wk because of toxicity in the 1000 mg/kg group. The doses selected for the 2-yr studies were based on the general lack of adverse effects seen in the 14-day and 13-wk studies in which rats received 0-1000 mg/kg and mice received 0-2000 mg/kg by gavage in water. No compd.-related histopathol. effects were obsd. in the 14-day or the 13-wk studies in mice. In the 2-yr studies, survival and mean body wts. of dosed and vehicle control male mice groups were comparable (survival--vehicle control, 39/50; low dose, 35/50; high dose, 32/50). Survival of the dosed female mice was lower than that of the vehicle controls (30/50; 16/50; 21/50), although at week 80 survival of female mice was 42/50, 39/50, and 36/50. The mean body wts. of the high dose female mice were lower than those of the vehicle control mice, primarily after week 32; final body wts. were 11% lower in the high dose group compared with that in the vehicle controls. The lower survival and mean body wts. of the dosed female mice may have been due to the greater incidence of uterine/ovarian infections in these mice rather than to a direct toxic effect of chlorinated trisodium phosphate. Nine of 20 vehicle control, 20/34 low dose, and 21/29 high dose female mice that died before the end of the studies had such infections. This reduced survival decreased the sensitivity of the study of female mice for detecting the ***presence*** or ***absence*** of ***carcinogenic*** effects. Chlorinated trisodium phosphate was weakly mutagenic in strain TA1535 of Salmonella typhimurium in the ***presence*** of Aroclor 1254-induced male rat or male hamster liver S9. This compd. was not mutagenic in strains TA97, TA98, or TA100. Under the conditions of these 2-yr gavage studies, there was no evidence of carcinogenicity for either male or female mice given chlorinated trisodium phosphate by gavage in water for 103 wk at doses of 500 or 1000 mg. Survival of dosed female mice was 78% and 72% after 80 wk and 32% and 42% at the termination of the study.

L10 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1986:143634 CAPLUS <<LOGINID::20100917>>
DN 104:143634
OREF 104:22602h,22603a
TI 7-Methylbenz[c]acridine: mutagenicity of some of its metabolites and derivatives, and the identification of trans-7-methylbenz[c]acridine-3,4-dihydrodiol as a microsomal metabolite
AU Gill, J. H.; Bonin, A. M.; Podobna, E.; Baker, R. S. U.; Duke, C. C.; Rosario, C. A.; Ryan, A. J.; Holder, G. M.
CS Sch. Public Health Trop. Med., Univ. Sydney, Sydney, 2006, Australia
SO Carcinogenesis (1986), 7(1), 23-31 CODEN: CRNGDP; ISSN: 0143-3334
DT Journal
LA English
AB The ***presence*** of the proposed proximate ***carcinogen*** , trans-3,4-dihydro-3,4-dihydroxy-7-methylbenz[c]acridine (I) [92145-26-1] among the liver microsomal metabolites of 7-methylbenz[c]acridine (II) [3340-94-1] has been demonstrated. I represented 2.2-3.4% of the total Et acetate-extractable metabolites formed from II by liver microsomes prepd. from untreated and induced rats. About 2.3-2.7% of metabolites formed by lung microsomes was identified as I. Mutagenicity studies with I have been carried out in bacterial and mammalian systems using S9 fractions derived from rats pretreated with Arclor and guinea pigs pretreated with 3-methylcholanthrene. Comparative data with other II derivs. are also reported. I and the analogous dihydro deriv. of II were the most potent mutagens of those compds. requiring metabolic

activation. The data imply that the 3,4-dihydrodiol is metabolized to a bay region diol epoxide as the ultimate carcinogen. In support of this, anti-1,2-epoxy-trans-3,4-dihydroxy-7-methyl-1,2,3,4- tetrahydrobenz[c]acridine [101135-03-9] was a potent mutagen in the Ames and V-79 cell systems without activation. The syn-isomer was less active.

L10 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1985:91226 CAPLUS <<LOGINID::20100917>>
DN 102:91226
OREF 102:14251a,14254a
TI Causes of papillomas of fish exposed to chlorinated sewage effluent
AU Grizzle, J. M.; Melius, P.
CS Auburn Univ., AL, USA
SO Report (1984), EPA-600/3-84-076; Order No. PB84-223023, 32 pp. Avail.: NTIS From: Gov. Rep. Announce. Index (U. S.) 1984, 84(22), 36
DT Report
LA English
AB The cause of oral papillomas in black bullheads (Ictalurus melias) from the final oxidn. pond of the Tuskegee, Alabama, sewage treatment plant was studied. The water in this pond was chlorinated effluent from the sewage treatment plant. The ***presence*** of a ***carcinogenic*** and mutagenic chem. in the effluent of a sewage treatment plant was indicated by papillomas developing on caged black bullheads, glucuronosyltransferase [37329-64-9] induction in caged channel catfish, and ***Ames*** - ***test*** mutagenicity of water ext. Unlike previously studied fish papillomas, virus-like particles were not ***present*** in the tumor cells. Although mutagenic and carcinogenic chems. have not been identified in the wastewater, Cl is implicated as a factor contributing to the induction of the papillomas because the prevalence of papillomas on wild black bullheads exposed to the effluent decreased from 73% to 23% after the chlorination rate was reduced.

L10 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1985:1788 CAPLUS <<LOGINID::20100917>>
DN 102:1788
OREF 102:355a,358a
TI Papillomas on fish exposed to chlorinated wastewater effluent
AU Grizzle, John M.; Melius, Paul; Strength, D. Ralph
CS Dep. Fish., Allied Aquacult., Auburn, AL, 36849, USA
SO JNCI, Journal of the National Cancer Institute (1984), 73(5), 1133-42 CODEN: JJIND8; ISSN: 0198-0157
DT Journal
LA English
AB The ***presence*** of ***carcinogenic*** and mutagenic chem.(s) in the effluent of a wastewater treatment plant was indicated by papillomas developing on caged black bullheads (Ictalurus melas), hepatic enzyme induction in exposed fish, and ***Ames*** ***test*** mutagenicity of org. exts. of the wastewater. Although virus-like particles have been reported in papillomas of several other fish species, no evidence was obtained for the ***presence*** of viruses in the black bullhead papillomas. Mutagenic and carcinogenic chems. were not identified in the wastewater, but chlorination was implicated as a factor contributing to the induction of the papillomas. The prevalence of papillomas on wild black bullheads exposed to the effluent decreased from 73 to 23% after the amt. of residual Cl in the effluent leaving the Cl contact chamber was reduced from 1.3-3.1 to 0.24-1.2 mg/L.

OSC.G 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)

L10 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1984:12250 CAPLUS <<LOGINID::20100917>>
DN 100:12250
OREF 100:1925a,1928a
TI ***Ames*** ***test*** of ferrate-treated water
AU DeLuca, Sergio J.; Chao, Allen C.; Smallwood, Charles, Jr.
CS Pesquiseshidraul., Univ. Fed. Rio Grande do Sul, Rio Grande do Sul, 90000, Brazil
SO Journal of Environmental Engineering (Reston, VA, United States) (1983), 109(5), 1159-67 CODEN: JOEEDU; ISSN: 0733-9372
DT Journal
LA English
AB The ***Ames*** ***test*** was used to detect the ***presence*** of mutagenic/ ***carcinogenic*** by-products in KFeO4 [13718-66-6]-treated water samples that had been spiked with selected priority pollutants. Gas chromatograph anal. was used to measure the efficiency of removal of the substances but could not be used to detect the prodn. of by-products. Neg. ***Ames*** ***test*** results suggested the KFeO4 treatment was not only effective in removing the substances but also did not produce any remaining mutagenic by-products during the treatment process. Increasing concern about the chem. pollution of drinking water sources and the possible generation of mutagenic/carcinogenic substances by water and wastewater treatment processes suggests the ***Ames*** ***test*** could become an index of treatment performance.
OSC.G 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)

L10 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1981:456009 CAPLUS <<LOGINID::20100917>>
DN 95:56009
OREF 95:9393a,9396a
TI Kinetics of uptake and biliary excretion of benzo[a]pyrene and mutagenic metabolites in isolated perfused rat liver
AU Cantelli Forti, G.; Trieff, N. M.
CS Inst. Pharmacol., Univ. Bologna, Bologna, Italy
SO Teratogenesis, Carcinogenesis, and Mutagenesis (1980), 1(3), 269-82 CODEN: TCMUD8; ISSN: 0270-3211
DT Journal
LA English
AB An isolated liver perfusion system was used as a simplifying tool to study the metab. and excretion of benzo[a]pyrene (BP)(I) [50-32-8] as a prototype carcinogen/mutagen. Phenobarbital (PB) was used to induce liver microsomal enzymes in male rats prior to isolated liver perfusion. Control livers were run simultaneously using [G-3H]BP/BP as a substrate in the perfusion medium. Both biliary excretion and liver wt. were increased in the induced compared to control liver, but biliary flow when cor. for liver wt. is statistically the same for both control and PB-induced livers. The excretion rate of radioactivity in the bile is always higher for PB-induced than for control liver (max. radioactive excretion at 1 h). There is a more rapid radioactivity removal in the liver perfusion for PB-induced than for control livers. Data are explained by increased metab. of BP in induced liver leading to the ***presence*** of more polar metabolites undergoing preferential biliary excretion than in the control liver. Results support in vivo exptl. data. Exts. from liver and bile were tested for microbial mutagenicity by the ***Ames*** ***test*** (TA 100) after TLC sepn. The control liver shows virtually no mutagenicity in bile, only in TLC

fractions from the liver. The BP-induced liver shows significant mutagenicity in several TLC fractions in bile and liver. The net effect of induction is to produce more mutagenic metabolites of BP, excreted in the bile, and ***presenting*** a significant exposure of ***carcinogens*** /mutagens, and consequent hazard to man.

=> d his
(FILE 'HOME' ENTERED AT 13:07:08 ON 17 SEP 2010)
FILE 'CAPLUS' ENTERED AT 13:07:36 ON 17 SEP 2010
L1 1365 S ((AMES(W)TEST?) AND (PRESEN? OR ABSEN?))/BI,AB
L2 1340 S L1 NOT 2010/PY
L3 1305 S L2 NOT 2009/PY
L4 1271 S L3 NOT 2008/PY
L5 1228 S L4 NOT 2007/PY
L6 1193 S L5 NOT 2006/PY
L7 1165 S L6 NOT 2005/PY
L8 1122 S L7 NOT 2004/PY
L9 1084 S L8 NOT 2003/PY
L10 22 S L9 AND ((PRESEN? OR ABSEN?) (5A) CARCINOGEN?)/BI,AB

=> log y
COST IN U.S. DOLLARS SINCE FILE
TOTAL ENTRY SESSION
FULL ESTIMATED COST 122.02 122.24

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION
CA SUBSCRIBER PRICE -18.70 -18.70

STN INTERNATIONAL LOGOFF AT 13:11:07 ON 17 SEP 2010